Forest Health Research Program Grantee Webinar:

Climate change and drought mortality increase fuel availability and the carbon cost of forest management

Marissa Goodwin, University of New Mexico

Wednesday, January 25, 2023

3:00 pm – 4:00 pm

Register here

Abstract: Rising temperatures and more frequent droughts have resulted in widespread tree mortality, transitioning large amounts of live biomass to snags and coarse woody debris. These dead fuel loads are also drying out earlier and faster with climate change which increases the ease of fuel combustion when fire occurs. This increase in fuel availability has likely contributed to the unprecedented wildfire behavior we have seen in recent years and poses a challenge to the use of prescribed fire in areas with substantial tree mortality. Additionally, dead fuel loading from drought mortality has increased the amount of carbon released during second entry prescribed burns, requiring us to rethink the carbon costs associated with both initial and repeat prescribed burning.

Speaker Bio: Marissa Goodwin is the project manager of the Teakettle Ecosystem Experiment, a long- term study looking at the effects of mechanical thinning and repeat burning on carbon storage and ecosystem function in a Sierra Nevada mixed-conifer forest. She has worked as the project manager at Teakettle since 2016. She is also pursuing a M.S. at the University of New Mexico where her research focuses on the effects of climate change on forest function and carbon dynamics and how this influences forest management.

The Forest Health Research Program is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

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